

Applicant: Zheng Fang
Application No.: 09/833,291

IN THE CLAIMS

1. (Original) An apparatus for monitoring voice over Internet (VoIP) signal communications originating from the customer premises equipment (CPE), the apparatus comprising:

 a real time protocol (RTP) mirror included in the CPE, the RTP mirror can be controllably altered between two mirror states, in both the first mirror state and the second mirror state the RTP mirror provides for transfer of original RTP packets to or from the CPE; in the first mirror state the RTP mirror limits transfer of a copy RTP packet from the RTP mirror, in the second mirror state the RTP mirror provides for transfer of the copy RTP packet from the RTP mirror.

2. (Original) The apparatus of claim 1, further comprising a network transferring original RTP packets between the CPE and a second CPE, wherein the network supports a packet switching protocol.

3. (Original) The apparatus of claim 1, further comprising:

 a network transferring copy RTP packets to or from the CPE; and

 a RTP server located on the network that receives those copy RTP packets generated by the RTP mirror.

4. (Original) The apparatus of claim 3, further comprising a Management Information Base (MIB) that verifies the identity of the RTP server.

5. (Original) The apparatus of claim 4, wherein the MIB uses the SNMP v3 protocol to verify the identity of the RTP server.

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6. (Original) The apparatus of claim 4, wherein the RTP mirror can only be changed to the second mirror state if the MIB verifies the identity of the RTP server.

7. (Original) The apparatus of claim 1, further comprising a call agent, wherein the call agent establishes a RTP call that transfers the original RTP packets, and the call agent further establishes a RTP monitor call that transfers the copy RTP packets.

8. (Original) The apparatus of claim 1, wherein the RTP mirror is enabled when it is in the second mirror state.

9. (Canceled)

10. (Currently amended) An apparatus that is configured to receive copy RTP packets that represent copies of original RTP packets transmitted between a plurality of consumer premises equipment (CPE), the apparatus comprising:

 a RTP server receiving copy RTP packets from a remote network location and that generates a RTP monitor call in response to the received copy RTP packets.

11. (Original) The apparatus of claim 10, further comprising:

 a real time protocol (RTP) mirror included in the customer premises equipment (CPE), the RTP mirror can be controllably altered between two mirror states, in both the first mirror state and the second mirror state the RTP mirror provides for transfer of original RTP packets to or from the CPE; in the first mirror state the RTP mirror limits transfer of copy RTP packets from the RTP mirror, in the second mirror state the RTP provides for transfer of the copy RTP packets.

12. (Currently amended) A [[The]] method of monitoring voice communications, further comprising:

identifying a first voice over Internet (VoIP) consumer premises equipment (CPE) to monitor voice communications;

establishing an RTP call between the first VoIP CPE and a second CPE; and

establishing an RTP monitor call between the first VoIP CPE and a RTP server.

13. (Currently amended) The method of claim 12, wherein the RTP call is established from an RTP mirror included in the first VoIP CPE.

14. (Original) The method of claim 12, wherein the RTP call is established using original RTP packets, and the monitor RTP call is made using copy RTP packets.

15. (Original) The method of claim 12, further comprising verifying the identity of the RTP server using a Management Information Base (MIB).

16. (Canceled)

17. (Canceled)

18. (Original) An apparatus for monitoring voice over Internet (VoIP) signal communications extending from a first customer premises equipment (CPE) to a second CPE, the apparatus comprising:

a RTP server;

a RTP mirror included in the first CPE, the RTP mirror can be controllably altered between two mirror states, in both the first mirror state and the second

mirror state the RTP mirror provides for original RTP packet transfer between the first CPE to the second CPE, in the first mirror state the RTP mirror limits transfer of a copy RTP packet from the RTP mirror to the RTP server, in the second mirror state the RTP mirror provides for transfer of the copy RTP packet to the RTP server; and

 a call agent that first sets up a RTP monitor call that transfers the copy RTP packets from the RTP mirror to the RTP server, the call agent then establishes a regular call that transfers the original RTP packets from the first CPE to the second CPE.

19. (Original) The apparatus of claim 18, further comprising a Management Information Base (MIB) that verifies the identity of the RTP server to place the RTP mirror in the second mirror state.

20. (Original) A method for monitoring telephone communications extending from a first customer premises equipment (CPE) to a second CPE, the method comprising:

 controllably altering a real time protocol (RTP) mirror between two mirror states, the RTP mirror providing for original RTP packet transfer from the first CPE to the second CPE in both the first mirror state and the second mirror state, limiting transfer of a copy RTP packet from the RTP mirror to a RTP server in the first mirror state;

 providing for transfer of the copy RTP packet from the RTP mirror to the RTP server in the second mirror state;

 providing for transfer of the original RTP packets from the first CPE to the second CPE; and

 establishing a RTP monitor call that transfers the copy RTP packets from the RTP mirror to the RTP server.

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21. (Original) The method of claim 20, further comprising verifying the identity of the RTP server prior to any copy RTP packets are transmitted from the RTP mirror to the RTP server.
22. (Original) The method of claim 20, further comprising the instance of RTP mirror can be located on the CMTS which controls the first CPE.
23. (New) The apparatus of claim 1 further comprising a network transferring original RTP packets between the CPE and at least a second CPE, wherein the network supports a packet switching protocol.